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Matthias Franz

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EXAMINER

TUCKER, WESLEY J

ART UNIT

PAPER NUMBER

2624

MAIL DATE

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09/10/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/532,413 | Applicant(s) FRANZ, MATTHIAS | |
| | Examiner WESLEY TUCKER | Art Unit 2624 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed June 2nd 2008 has been entered and made of record.

2. Applicant has amended claims 12, 17, 20 and 25. New claims 27-33 have been added. Claims 1-11 are cancelled. Claims 12-33 are pending.

3. Applicant's remarks in view of the newly amended claims have been considered but are not found persuasive for at least the following reasons:

Applicant has attempted to amend around the prior art reference to Seta by changing the claimed phrase "adjusting at least one parameter" to "replacing a value of at least one parameter."

First when a parameter is adjusted, the newly adjusted parameter is interpreted to be a replacement of the parameter before it was adjusted. Therefore the reference to Seta is interpreted to read on the amended claimed limitation. Further discussion will be provided below. However, it is unclear from Applicant's remarks and from Applicant's specification where the newly amended claim language finds support in the specification. Indeed the term "replace" does not appear in the specification. The term "adjust" appears throughout the specification, but makes no mention of replacing a value of a parameter with a measured value of another image sensor. Applicant is encouraged to explain how the specification supports the claimed limitation of replacing a parameter and how such a limitation is different from the adjusting taught by both the

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reference to Seta and the adjusting disclosed throughout Applicant's own specification.

Until such evidence is provided the claimed limitation will be treated as new matter. The rejection in view of Seta is therefore maintained and is accordingly made FINAL.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 12, 17, 20 and 25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicant has amended the independent claims to change the phrase "adjusting at least one parameter" to "replacing a value of at least one parameter." It is unclear from Applicant's remarks and from the specification where the newly amended claim language finds support in the specification. Indeed the term "replace" does not appear in the specification. The term "adjust" appears throughout the specification, but makes no mention of replacing a value of a parameter with a measured value of another image sensor. Applicant is encouraged to explain how the specification supports the claimed limitation of replacing a parameter and how such a limitation is different from the

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adjusting taught by both the reference to Seta and the adjusting disclosed throughout Applicant's own specification. Until such evidence is provided the claimed limitation will be treated as new matter.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 12-26 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,987,534 to Seta.

With regard to claim 12, Seta discloses ***a method for adjusting at least one parameter of at least one image sensor of an image sensor system, the image sensor system including at least two image sensors which record essentially the same scene*** (Fig. 1, elements 1 and 2, Seta discloses a main camera and a sub camera that image the same scene for stereo imaging), ***the method comprising:***

when at least one error of at least one error type occurs in at least one of the image sensors, replacing a value of at least one parameter of the at least one image sensor measured value of at least one other of the image sensors of the

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image sensor system, wherein the measured value is associated with a parameter of the at least one other image sensor that corresponds to the at least one parameter of the at least one image sensor (column 5, lines 6-15 and column 6, lines 1-64, Seta discloses a method for determining a difference in the brightness values of two different cameras represented by AVE1 and AVE2. If the difference between the brightness values represented by SUM exceeds a threshold, the gain is adjusted to correct for the unacceptable difference. When the difference in the brightness values exceeds a threshold this is interpreted as an error. Seta also discloses correcting brightness values of either of the cameras or image sensors by adjusting gain. Adjusting gain is interpreted as adjusting a parameter of the image sensor or camera. In view of Applicant's amendment, the adjustment of the gain parameter is interpreted as replacing the parameter, since the gain creates a new value thereby replacing the previous parameter value. The parameter is adjusted or replaced according to the value of the other imaging sensor. When Seta determines an image sensor to be in error, it is corrected through use of the measured luminance and gain values of the other image sensor).

The discussion of claim 12 likewise applies to each of independent claims 17, 20 and 25.

With regard to claim 13, Seta discloses ***the method according to claim 12, wherein the image sensor system is in a motor vehicle*** (column 2, lines 38-40).

With regard to claim 14, Seta discloses ***the method according to claim 12, wherein the at least one parameter is at least one lighting parameter, including at least one of a gain, an offset and an integration time*** (column 6, lines 9-24, Seta discloses adjusting gain when the difference in average brightness between the two images exceeds a threshold).

With regard to claim 15, Seta discloses ***the method according to claim 12, wherein the at least one measured value is a measure of a lighting of at least one part of an image of the at least one further image sensor*** (column 5, lines 7-15, Seta discloses that the brightness which is interpreted as lighting is measured for each image and then compared).

With regard to claim 16, Seta discloses ***the method according to claim 12, wherein the at least one error type includes at least one of (a) at least one image error and (b) at least one hardware error*** (column 6, lines 9-25, Seta disclose that the error is determined if and when the average brightness difference between the two images exceeds a threshold. This is interpreted as an image error).

With regard to claim 17, the discussion of claim 12 applies. Seta discloses the method as claimed in claim 12 and further discloses performing the method using a device shown in Fig. 1.

With regard to claim 18, the discussion of claim 13 applies.

With regard to claim 19, the discussions of claims 14 and 15 apply. The processing unit is interpreted as the elements of Fig. 1, namely correction circuit 5, calculating section 13, and gain adjusters 3 and 14 as discussed.

With regard to claim 20, Seta discloses ***a processing unit for generating at least one adjustment signal for at least one parameter of at least one image sensor of an image sensor system*** (Fig. 1, the processing unit is interpreted as the elements of Fig. 1 as a whole but specifically the following components perform the operation as claimed: correction circuit 5, calculating section 13, and gain adjusters 3 and 14 as discussed), ***the processing unit comprising:***

an arrangement for receiving at least two different images which represent essentially the same scene (Fig. 1, elements 1 and 2, Seta discloses a main camera and a sub camera that image the same scene for stereo imaging; ***and***

an arrangement for monitoring an occurrence of at least one error of at least one error type in at least one image sensor of the image sensor system and, in the event of an occurrence of at least one error in the at least one image sensor of the image sensor system, for generating at least one replacement signal for at least one parameter of the at least one image sensor, wherein the at least one

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replacement signal includes a sensor signal from at least one further image sensor of the image sensor system, wherein the replacement signal is associated with a parameter of the at least one further image sensor that corresponds to the at least one parameter of the at least one image sensor (column 5, lines 6-15 and column 6, lines 1-64, Seta discloses a method for determining a difference in the brightness values of two different cameras represented by AVE1 and AVE2. If the difference between the brightness values represented by SUM exceeds a threshold, the gain is adjusted to correct for the unacceptable difference. When the difference in the brightness values exceeds a threshold this is interpreted as an error. Seta also discloses correcting brightness values of either of the cameras or image sensors by adjusting gain. Adjusting gain is interpreted as adjusting a parameter of the image sensor or camera. The processing unit depicted in Figure 1 is arranged to perform the discussed operations. In view of Applicant's amendment, the adjustment of the gain parameter is interpreted as replacing the parameter, since the gain creates a new value thereby replacing the previous parameter value. The parameter is adjusted or replaced according to the value of the other imaging sensor. When Seta determines an image sensor to be in error, it is corrected through use of the measured luminance and gain values of the other image sensor).

With regard to claims 21- 24, the discussions of claims 13-16 apply respectively.

With regard to claim 25, the discussion of claims 12 and 20 apply. Seta discloses a computer program for executing the method discussed in the apparatus of Fig. 1 (column 5, lines 5-10 and 18-20). The steps of the program are shown in Figs. 2, 3 and 7.

With regard to claim 26, the discussion of claim 13 applies.

With regard to claim 27, Seta discloses ***the computer program according to claim 25, wherein the replacement value is based on an original signal from the at least one other image sensor*** (column 5, lines 6-15 and column 6, lines 1-64, Seta discloses adjusting a parameter thus replacement the old parameter with the new adjusted parameter based on image data fro the other image sensor).

With regard to claim 28, the discussion of claim 27 applies.

With regard to claim 29, the discussions of claims 14 and 15 apply.

With regard to claim 30, the discussion of claim 16 applies.

With regard to claim 31, the discussion of claim 18 applies.

With regard to claim 32, the discussion of claim 27 applies.

With regard to claim 33, the discussion of claim 27 applies.

Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to WESLEY TUCKER whose telephone number is (571)272-7427. The examiner can normally be reached on 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Bella can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Wes Tucker/
Examiner, Art Unit 2624

/Matthew C Bella/
Supervisory Patent Examiner, Art
Unit 2624